

IN THE CLAIMS

What is claimed is:

1 1. A method, comprising the steps of:
2 bending a substrate by applying a force with a movable chuck portion
3 to orient essentially all of a surface of the substrate at a predetermined angle
4 with respect to an input source.

1 2. The method of claim 1, wherein:
2 the substrate comprises a silicon wafer having a diameter of at least
3 about eight inches.

1 3. The method of claim 1, wherein:
2 the force comprises an electrostatic force generated by a potential
3 difference between the substrate and the movable chuck portion.

1 4. The method of claim 1, wherein:
2 the movable portion comprises a split electrode electrostatic chuck.

1 5. The method of claim 1, wherein:
2 bending the substrate includes receiving the substrate in a recess
3 having a concave shape.

1 6. The method of claim 5, wherein:
 2 bending the substrate includes introducing a curvature into the
 3 substrate selected from the group consisting of spherical, conical and
 4 cylindrical.

1 7. The method of claim 1, wherein:
 2 applying the force with a movable chuck portion includes attracting
 3 the substrate to the movable portion with an electrostatic force when the
 4 substrate has an essentially unbent shape, and moving the movable chuck
 5 portion with respect to a stationary substrate receiving portion.

1 8. The method of claim 1, wherein:
 2 applying the force with a movable chuck portion includes moving the
 3 movable chuck portion with respect to a stationary substrate receiving portion
 4 to bend the substrate.

1 9. The method of claim 8, further including:
 2 attracting the substrate receiving portion to a curved stationary
 3 substrate receiving portion with an electrostatic force.

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1 10. A method of processing a integrated circuit wafer, comprising the steps of:

2 placing a wafer over a concave chuck portion ;

3 applying a force to the wafer to conform to the concave chuck
4 portion;

5 maintaining the wafer in the deformed shaped as the wafer is
6 processed with respect to an input source.

1 11. The method of claim 10, wherein:

2 placing the wafer over the concave portion includes attracting the
3 wafer with an electrostatic force to the concave portion.

1 12. The method of claim 12 wherein:

2 attracting the wafer includes applying a voltage to an electrostatic
3 chuck within the concave portion.

1 13. The method of claim 10, wherein:

2 placing the wafer over the concave portion includes orienting the
3 wafer in a first direction; and

4 the force is applied with a movable chuck portion at an angle greater
5 than 45° with respect to the first direction.

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1 14. The method of claim 13, wherein:

2 placing the wafer over the concave portion includes contacting a
3 stationary chuck portion with a first side of the wafer; and

4 the force is applied by a movable portion to a second side of the wafer
5 that is opposite to the first side.

1 15. The method of claim 13, wherein:

2 placing the wafer over the concave portion includes contacting a
3 stationary chuck portion with a first side of the wafer; and

4 the force applied by the movable portion is an electrostatic force that
5 attracts the first side of the wafer to the movable portion.

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1 16. A system, comprising:
2 an input source {for processing the substrate according to a
3 predetermined manufacturing step;
4 a chuck system having
5 a substrate receiving surface that receives the substrate in an
6 essentially non-deformed shape, and
7 a force applying portion {that applies an attractive force ^{proposed in prior art}
8 between the substrate and the chuck system that maintains the
9 substrate in a deformed shape.}

1 17. The system of claim 16, wherein:
2 the input source comprises an ion implantation source. ^{MC}

1 18. The system of claim 16, wherein:
2 the substrate receiving surface has a type of curve selected from the
3 group consisting of spherical, conical, and cylindrical.

1 19. The system of claim 16, wherein:
2 the force applying portion includes a movable portion that moves with
3 respect to the substrate receiving surface {to change the substrate from the non-
4 deformed shape to the deformed shape.} ^{proposed in prior art}

- 1 20. The system of claim 19, wherein:
2 the force applied by the movable portion is selected from the group
3 consisting of electrostatic force and mechanical force.

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